REMARKS

Applicants respectfully request that the above-identified application be re-examined.

The May 11, 2006, Office Action (hereinafter "Office Action") rejected Claims 1-34 under 35 U.S.C. § 101 because the claimed invention was allegedly directed to non-statutory subject matter. With respect to Claims 1-15, remarks accompanying the 35 U.S.C. § 101 rejection state that no physical transformation is recited and, additionally, no useful, concrete and tangible result is found in Claims 1-15. With respect to Claims 16-34, remarks accompanying the 35 U.S.C. § 101 rejection state that the claims are directed to non-functional descriptive material. While applicants respectfully disagree, in order to advance the prosecution of this application, as discussed more fully below, various ones of Claims 1-34 have been amended. Applicants respectfully submit that Claims 1-34 are clearly statutory and request that the 35 U.S.C. § 101 rejection be withdrawn.

In addition to rejecting the claims under 35 U.S.C. § 101, Claims 1, 3, 5-8, 10, 11, 14-16, 18-28, and 30-33 were rejected in the Office Action under 35 U.S.C. § 102(e) as being fully anticipated by the teachings of U.S. Patent No. 6,698,012 (Kossatchev et al.). Claims 2, 4, 9, 12, 13, 17, 29, and 34 were rejected under 35 U.S.C. § 103(a) as made unpatentable in view of the teachings of Kossatchev et al. taken in view of the teaching of U.S. Patent No. 6,754,850 (Grey et al.). Prior to discussing the reasons why applicants believe that the claims are clearly allowable in view of the teachings of Kossatchev et al. and Grey et al., the 35 U.S.C. § 101 rejections are more fully addressed.

Rejections Under 35 U.S.C. § 101

As noted above, the May 11, 2006, Office Action rejected Claims 1-15 under 35 U.S.C. § 101 on the basis that the claimed invention is directed to non-statutory subject matter. Remarks accompanying this rejection go on to state:

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> The current focus of the Patent Office in regard to statutory inventions under 35 U.S.C. § 101 for method claims and claims that recited judicial exception (software) is that the claimed invention recite a practical application. Practical application can be provided by a physical transformation or a useful, concrete and tangible result. No physical transformation is recited and additionally, no useful, concrete and tangible result is found in the Claims 1-15.

While applicants respectfully disagree with the foregoing comments, in order to advance the prosecution of this application, the preamble of Claim 1 has been amended. As amended, the preamble of Claim 1 clearly recites a useful, concrete result, namely, running an application. Contrary to the foregoing remarks, Claim 1 also recites a transformation, namely, processing a selected application table entry in a particular manner. Applicants respectfully submit that Claim 1, particularly as amended, as well as the claims dependent therefrom (2-10), are in full compliance with the requirements of 35 U.S.C. § 101 as summarized in the foregoing remarks contained in the Office Action. Claim 1 and, thus, claims 2-10 recite both a useful, concrete result, namely, running an application and a transformation, namely, processing a selected application table entry in a particular manner.

While the preamble of Claim 11, the only other independent claim in the Claim 1-15 group that has not been amended, applicants respectfully submit that like Claim 1, Claim 11 clearly recites a useful, concrete result, namely, building a framework module for running an application. Claim 11 also recites a physical transformation, namely, the collection of data and the creation of application and parameter tables and the creation of application and parameter table entries. Thus, like Claim 1, Claim 11 and the claims dependent therefrom, (11-15) recite both a useful, concrete and tangible result as well as a physical transformation.

Applicants also point out that Claims 10 and 15, which depend from Claims 1 and 11, respectively, recite a computer-readable storage medium having instructions for carrying out the method of Claims 1 and 11, respectively. Thus, these claims are not, *per se*, method claims.

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Rather, they are computer-readable storage medium claims. As a result, they recite a physical or tangible device.

As noted above, Claims 16-34 were rejected under 35 U.S.C. § 101 because the invention is directed to non-statutory subject matter, specifically non-functional descriptive material. Applicants respectfully disagree. Claim 16 and Claim 23, the only independent claims in this group of claims, as well as all the claims dependent therefrom, namely, Claims 17-22 and 24-34, recite a computer-readable storage medium having stored thereon specific data structures. Data structures that increase computer efficiency are clearly functional and, thus, not objectionable under 35 U.S.C. § 101. In this regard, attention is directed to page 50 of the "Interim Guidelines for the Examination of Patent Applications for Patent Subject Matter Eligibility," referenced in the Office Action, specifically the reference to *In re Lowry*, 32 F.3d 1579, 1583-84, 32 U.S.P.Q.2d 1031, 1035 (Fed. Cir. 1994). Like the claims determined to be statutory in *In re Lowry*, Claims 16-34 are clearly directed to data structures stored on computer-readable media that increase computer efficiency. Applicants respectfully submit that Claims 16-34 are clearly in compliance with the requirements of 35 U.S.C. § 101 and thus are statutory. Consequently, applicants request that this ground of rejection be withdrawn.

Rejection of Claims 1, 3, 5-8, 10, 11, 14-16, 18-28, and 30-33 Under 35 U.S.C. § 102(e)

As noted above, Claims 1, 3, 5-8, 10, 11, 14-16, 18-28, and 30-33 were rejected under 35 U.S.C. § 102(e) by the Office Action for "being anticipated by Kossatchev." Each independent claim and the claims dependent therefrom are addressed separately as follows. For ease of understanding, the claims are discussed in the sequence employed in the Office Action 35 USC §103(e) rejections.

Claims 23-28 and 30-33

Independent Claim 23 recites, in its entirety:

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23. A computer-readable storage medium having stored thereon a data structure, the *data structure* comprising:

a first data field containing data representing an application table, the application table comprising an application table entry; and

a second data field containing data representing a parameter table, the parameter table comprising a parameter table entry.

(Emphasis added.)

Kossatchev does not teach or suggest a data structure comprising a first data field containing data representing an application table and a second data field containing data representing a parameter table. Kossatchev purportedly discloses a means 12 for generating specifications of the procedure interface 4 and a test source generator 14 that generates test source code based on the specifications. The *specifications and test sources* are stored in a *repository* 16 (Col. 3, lines 6-13). The repository 16 is not used to store a table, much less a first and a second data field containing data representing an application table and a parameter table, respectively. The repository stores specifications and test sources. In this regard, with reference to Figure 1 of Kossatchev, test sources are used to generate test suites 22. A test suite 22 is a set of programs and test data intended for use in verifying a target procedure interface 4 (Col. 3, lines 14-16). A test case parameter generator 32 generates test case parameter sources for generating test case parameters. That is, the test case parameter generator 32 generates constant arrays and programs that generate and select needed test case parameters (Col. 4, lines 11-15). The programs and test data contained in a test suite 22 and test case parameters generated by the test case parameter generator are not elements of a data structure, as recited by Claim 23. A data structure is an organizational scheme, such as a record or an array that can be applied to data to facilitate interpreting the data or performing operations on it. Even if Kossatchev discloses a data structure, which applicants deny, Kossatchev does not disclose a data structure containing first and second data fields containing data of the type recited in Claim 23. Among other

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differences, Kossatchev does not teach or suggest the use of an *application table*. Kossatchev discloses test suite 22, which is a set of programs and test data (Col. 3, line 15). As is well known in the art, a table is a data structure comprising multiple entries that can be accessed using an index. An application table, as recited by Claim 23, is clearly different from a set of programs and test data, as disclosed by Kossatchev. Therefore, it is respectfully submitted that Claim 23 is allowable.

Claim 24 depends from Claim 23 and is submitted to be allowable for at least the same reasons as Claim 23 is allowable. Additionally, Claim 24 recites "a third data field containing data representing a *global initialize function*; a fourth data field containing data representing a *global terminate function*." Kossatchev does not teach or suggest a third *data field* containing data representing a *global initialize function*. Furthermore, Kossatchev does not teach or suggest that the functions provided to initialize the procedure interface 4 are *global*. Those skilled in the art appreciate that the term "global" implies general applicability of a procedure to multiple similar software entities. Similarly, Kossatchev does not teach or suggest the use of a *global* terminate function. Therefore, Claim 24 is further submitted to be allowable for the additional reasons discussed above.

Claim 25 depends from Claim 24 and is submitted to be allowable for at least the same reasons discussed above with respect to Claim 24. Additionally, Claim 25 recites "a sixth *data field* containing data *representing an application test function*." (Emphasis added.) Kossatchev does *not* teach or suggest an application test function *represented by data in a data field*. Kossatchev discloses *specifying* the "behavior of a group of parallel procedures to be tested in a parallel mode separately from consecutive procedures." Kossatchev, Col. 1, lines 44-46. Therefore, Claim 25 is further submitted to be allowable for the reasons additional discussed above.

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Claim 26 depends from Claim 24 and is submitted to be allowable for at least the same reasons discussed above with respect to Claim 24.

Claim 27 depends from Claim 26 and is submitted to be allowable for at least the same reasons discussed above with respect to Claim 26. Additionally, Claim 27 recites "a seventh *data field* containing *data representing an application post function.*" (Emphasis added.) Kossatchev does not teach or suggest an application post function *represented by data in a data field*. Kossatchev discloses a test suite 22 that executes tests on a system under test 3 and analyzes results of the tests to verify the procedure interface 4. Kossatchev, Col. 3, lines 60-63. Therefore, Claim 27 is further submitted to be allowable for the additional reasons discussed above.

Claim 28 depends from Claim 27 and is allowable for at least the same reasons discussed above with respect to Claim 27. Additionally, Claim 28 recites "an eighth *data field* containing data representing an *application post test function*." (Emphasis added.) Kossatchev does not teach or suggest an application post test function *represented by data in a data field*. Kossatchev discloses a test driver that checks the "correctness of the target procedure execution results." Kossatchev, Col. 4, lines 55-60. Therefore, Claim 28 is further submitted to be allowable for the additional reasons discussed above.

Claim 30 depends from Claim 23 and is submitted to be allowable for at least the same reasons discussed above with respect to Claim 23. Additionally, Claim 30 recites "a third *data field* containing data representing a *name of a parameter*; a fourth *data field* containing data representing a *type of the parameter*; and a fifth *data field* containing data representing a *value of the parameter.*" (Emphasis added.) Kossatchev does *not* teach or suggest a name of the parameter, a type of the parameter, and a value of the parameter *represented by data in a data field*. Kossatchev discloses that "the test case parameter generator 32 generates *constant arrays*

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and programs that *generate* and select needed test case *parameters*." (Emphasis added.) Kossatchev, Col. 4, lines 13-16. Kossatchev further discloses that "[a] test case is *an instance of a tested procedure*. A test case is *defined by a procedure name and its parameters*. ...The test drivers use the test case parameters and execute test cases on the SUT 3 to verify the procedure interface 4." (Emphasis added.) Kossatchev, Col. 4, lines 25-29. Kossatchev discloses the use of parameters as part of the *definition of a test case*, in contrast to Claim 30, which recites name, type, and value of a parameter *represented by data in a data field*. Therefore, Claim 30 is further submitted to be allowable for the additional reasons discussed above.

Claims 31, 32, and 33 depend from Claim 23 and are submitted to be allowable for at least the same reasons discussed above with respect to Claim 23.

Claims 16, 18-21

Amended independent Claim 16 recites, in its entirety:

> 16. A computer-readable *storage* medium having stored thereon a *data structure*, the data structure comprising:
>
> a first data field containing *data representing* a *global initialize function*;
>
> a second data field containing *data representing* a *global terminate function*; and
>
> a third data field containing *data representing* an *application function*.

(Emphasis added.)

Claim 16 is submitted to be allowable for at least the same reasons discussed above with respect to Claim 24.

Claims 18-21 depend from Claim 16 and are submitted to be allowable for at least the same reasons discussed above with respect to Claim 16. Additionally, Claims 18-21 are

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submitted to be allowable for at least the same additional reasons discussed above with respect to Claims 25-28.

Claims 1, 3, 5-8, and 10

Claim 1 recites, in its entirety:

> 1. A computer-implemented method for running an application using a *framework module* including a framework data structure, the framework data structure including an application table and a parameter table, the application table including application table entries, the parameter table including parameter table entries, the method comprising:
>
> (a) selecting an application table entry; and
>
> (b) processing the selected application table entry, the processing comprising:
>
> (i) running a global initialize function referenced by the selected application table entry;
>
> (ii) running a sub-application referenced by the selected application table entry with one or more *parameters referenced by one or more parameter table entries*; and
>
> (iii) running a global terminate function referenced by the selected application table entry.

(Emphasis added.)

In general, Claim 1 is submitted to be allowable for at least the same reasons discussed above with respect to Claims 16 and 23, since Kossatchev does not teach or suggest a framework module to run an application where the framework comprises an application table and a parameter table (Claim 23) or global functionality (Claim 16). Kossatchev discloses *specifying the "behavior* of a group of parallel procedures to be tested in a parallel mode separately from consecutive procedures." Kossatchev, Col. 1, lines 44-46. (Emphasis added.) Kossatchev does not teach or suggest running a global initialize function referenced by the selected application

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table entry. Kossatchev also does not teach or suggest running a sub-application *referenced by the selected application table entry* with parameters *referenced by parameter table entries*. Kossatchev discloses in Figure 2 a means 12 for generating specifications of the procedure interface 4 and a test source generator 14, which generates test source code based on the specifications. The specifications and test sources are stored in a repository 16. Kossatchev, Col. 3, lines 6-13. This is in contrast to Claim 1, which recites the use of an application table and a parameter table containing references to sub-applications and corresponding parameters, respectively, to run the sub-applications. Therefore, Claim 1 is further submitted to be allowable for the additional reasons discussed above.

Claim 3 depends from Claim 1 and is submitted to be allowable for at least the same reasons discussed above with respect to Claim 1.

Claims 5-8 depend from Claim 1 and are submitted to be allowable for at least the same reasons discussed above with respect to Claim 1.

Claim 10 depends from Claim 1 and is submitted to be allowable for at least the same reasons discussed above with respect to Claim 1.

Claims 11 and 14-15

Independent Claim 11 recites, in its entirety:

> 11. A computer-implemented method for building a *framework module* for running an application, the framework module comprising an application table and a parameter table, the application comprising one or more sub-applications, the method comprising:
>
> (a) collecting data specifying one or more sub-applications composing the application;
>
> (b) collecting data specifying one or more parameters to the one or more sub-applications;
>
> (c) creating the *application table*, the creating of the application table comprising creating an application table entry for each of

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the one or more specified sub-applications, the creating of an application table entry comprising:

(i) creating a *reference to a global initialize function*;

(ii) creating a reference to a global terminate function; and

(iii) creating a reference to the sub-application; and

(d) creating the *parameter table*, the creating of the parameter table comprising creating a parameter table entry for each of the one or more specified sub-application parameters, the creating of a parameter table entry comprising:

(i) creating a *reference to a name of the parameter*; and

(ii) creating a reference to a type of the parameter.

(Emphasis added.)

In general, Claim 11 is submitted to be allowable for at least the same reasons discussed above with respect to Claims 1, 16, and 23.

Claims 14 and 15 depend from Claim 11 and are submitted to be allowable for at least the same reasons discussed above with respect to Claim 11.

The Office Action states, on page 12 in the section Response to Arguments, "[a]s to point (a), Kossatchev teaches a data structure comprising a first data field containing data representing an application table (*e.g., see the test suit* ***[sic]*** discussion *beginning at col. 3, line 14*) and a second data field containing data representing a parameter table (*e.g., see the test case parameters discussion beginning at col. 4, line 11*)." (Emphasis original.)

Applicants respectfully disagree. The reference provided by the Office Action to Kossatchev, Col. 3, line 14, does not teach or suggest a first data field containing *data*

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representing an application table, as recited by Claim 23. Kossatchev purportedly discloses a test suite 22 comprising a set of programs and test data (Col. 3, lines 14-16). Kossatchev does not teach or suggest a data structure including a *first data field* containing *data representing* an application table, and a *second data field* containing *data representing* a *parameter table*. Those skilled in the art will appreciate that *data representing* an *application table* is not the same as a set of programs. The *application table* is an entity *distinct* from the *data representing* the application table. Therefore, Claim 23 is submitted to be allowable, as previously stated.

Rejection of Claims 2, 4, 9, 12, 13, 17, 29, and 34 under 35 U.S.C. § 103(a)

As noted above, Claims 2, 4, 9, 12, 13, 17, 29, and 34 were rejected under 35 U.S.C. § 103(a) by the Office Action for "as being unpatentable over Kossatchev...in view of Grey." Each set of claims as grouped by the Office Action on pages 8 and 9 are addressed separately as follows.

Claims 2, 12, and 17

Claim 2 depends from Claim 1 and is submitted to be allowable for at least the same reasons discussed above with respect to Claim 1. As noted above with respect to Claim 1, Kossatchev does not teach or suggest a global initialization function *referenced by the selected application table entry*. Grey fails to supply the teachings missing from Kossatchev. Grey discloses that "an unnamed synchronization object may be created that the user can access through an *ActiveX reference variable*." (Emphasis added.) Grey, Col. 23, lines 24-26. Grey further discloses that the "user can use the ActiveX reference to the object in place of its name when performing operations on the Object...without performing a Create operation in each thread." Grey, Col. 23, lines 62-64. The *ActiveX reference* variable is used by Grey to *access* a *synchronization object*, in contrast to Claims 1 and 2, which recite the use of an *application table entry* to *run* a *global initialize function*. Additionally, Claim 2 recites "at least one of the global

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initialize and the global terminate *functions* is a *NULL function*." (Emphasis added.) In contrast, Grey discloses that "if the user specifies an *empty string* as the name for a *synchronization object*, then an unnamed synchronization object may be created that the user can access though an ActiveX reference variable." Grey, Col. 23, lines 23-26. Claim 2 recites a *NULL function*, in contrast to Grey, which discloses an empty string as the name for a *synchronization object*, which is different from a function. Therefore, Claim 2 is further submitted to be allowable for the additional reasons discussed above.

Claims 12 and 17 are submitted to be allowable for at least the same reasons discussed above with respect to Claim 2.

Claims 4, 13, 22, and 29

Claim 4 depends from Claim 1 and is submitted to be allowable for at least the same reasons discussed above with respect to Claim 1. As noted above with respect to Claim 2, Kossatchev does not teach or suggest a global initialization function *referenced by the selected application table entry*. Grey fails to supply the teachings missing from Kossatchev. Grey discloses that "an unnamed synchronization object may be created that the user can access through an *ActiveX reference variable*." (Emphasis added.) Grey, Col. 3, lines 24-26. Claim 4 recites, *inter alia*, "*running* a thread initialize function *referenced by the selected application table entry*." (Emphasis added.) Grey discloses a method that is used during the *development of a program* using an *application development environment*. During the development of the application, the developer may *specify* a batch synchronization section. Grey, Col. 12, lines 21-29. This is in contrast to Claim 2, which recites *running a function referenced* by the selected application *table entry* in a run-time environment. Therefore, Claim 4 is further submitted to be allowable for the additional reasons discussed above.

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Claim 13 depends from Claim 11 and is submitted to be allowable for at least the same reasons discussed above with respect to Claim 11. As noted above with respect to Claim 11, Kossatchev does not teach or suggest running a global initialize function *referenced* by the selected application *table entry*. Kossatchev also does not teach or suggest running a sub-application *referenced by the selected application table entry* with parameters *referenced by parameter table entries*. Grey fails to supply the teachings missing from Kossatchev. Grey discloses a method whereby each thread in the *plurality of threads may execute the program* until the thread arrives at the enter point for the *batch synchronization section*. The thread is blocked upon arriving at the enter point until all other threads arrive at the enter point. Once all threads have arrived at the enter point, execution of the program within the batch synchronization section proceeds. Grey, Col. 5, lines 52-58. Grey discloses *a method for creating a computer program* using batch synchronization section, whereas Claim 13 recites creating a *reference to a thread initialize function* and thread terminate function. Therefore, Claim 13 is further submitted to be allowable for the additional reasons discussed above.

Claim 22 recites features similar to Claim 13 and is, therefore, submitted to be allowable for at least the same reasons discussed above with respect to Claim 13.

Claim 29 recites features similar to Claim 13 and is, therefore, submitted to be allowable for at least the same reasons discussed above with respect to Claim 13.

Claim 9 depends from Claim 1 through Claim 8 and is submitted to be allowable for at least the same reasons discussed above with respect to Claim 2, which also depends from Claim 1.

Claim 34 depends from Claim 23 and is submitted to be allowable for at least the same reasons discussed above with respect to Claim 29, which also depends from Claim 23.

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The Office Action states, on page 12 in the section Response to Arguments, "[a]s to point (b), Kossatchev does not teach the use of an application (*e.g., see the test suit **[sic]** discussion beginning at col. 3, line 14*). (Emphasis original.)

As noted previously, Kossatchev does not teach or suggest the use of an application *table represented by data* contained in a *first data field*. Therefore, the above-mentioned claims are submitted to be allowable for at least the reasons presented.

CONCLUSION

In summary, applicants respectfully submit that all the claims in this application are fully in compliance with 35 USC §101 and clearly allowable in view of the disclosures of Kossatchev and Grey, applied singly or in any motivated combination. As a result, applicants respectfully request that all of the claims remaining in this application be allowed and this application be passed to issue. If the Examiner has any questions, the Examiner is invited to contact applicants' attorney at the number set forth below.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the U.S. Postal Service in a sealed envelope as first-class mail with postage thereon fully prepaid and addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the below date.

Date: August 10, 2006 Patricia Gubbels

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